clarion

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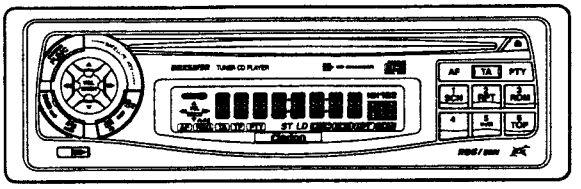
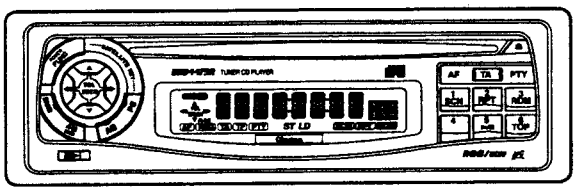
# Service Manual



*Model DRX5375R*



*Model DRB4475R*

AM/FM CD Player
with CD Changer Control

**Model** ***DRX5375R***

(PE-2231E-B)

AM/FM CD Player

**Model** ***DRB4475R***

(PE-2270 E-A/illumination:Amber)
(PE-2270 E-B/illumination:Green)

## ■SPECIFICATIONS

**FM tuner section**
Frequency range: 87.5 to 108MHz (0.05MHz steps)

**MW tuner section**
Frequency range: 531 to 1602kHz (9kHz steps)

**LW tuner section**
Frequency range: 153 to 279kHz (3kHz steps)

**CD player section**
System: Compact disc audio system
Usable disc: Compact disc
Frequency response:
10Hz to 20kHz (±1dB)
Signal to Noise ratio: 96dB (1kHz,IHF-A)
Dynamic range: 95dB (1kHz)
Ditortion: 0.01%

**General**
Maximum power output:
30Wx4ch
Power supply voltage:
14.4V DC (10.8V to 15.6V)
Ground: Negative ground
Speaker Impedance: 4Ω(4Ω to 8Ω)
Current consumption:
Less than 10A
Dimensions: 178(W)x50(H)x155(D)mm
Weight: 1.7kg

## ■COMPONENTS

**PE-2231E-B, PE-2270E-A/E-B**

| | | |
|---|---|---|
| Main unit | | 1 |
| Parts Bag | | |
| Extension lead | 850-66810O | 1 |
| Hook Plate | 330-82160L | 2 |
| Lead holder (PE-2231E-B Only) | 335-08330 1 | 1 |
| Screw | 716-07260 1 | 1 |
| Spaser | 345-36530 1 | 1 |
| DCP Case | 335-53313O | 1 |
| Mounting bracket | 300-90350 3 | 1 |

※ Specifications comply with EIA Standards.
※ Specifications and the design are subject to change without notice for further improvement.

## ■ To engineers in charge of repair or inspection of our products.

Before repair or inspection,make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage.Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable.The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction,use of insulation tubes,bonding,gaps to PWB,etc,is involved.The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts.Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair,the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws,parts and wires are put back securely in their original position after repair.Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair,the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off.If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur.If extensive damage is caused due to negligence of repair,the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance.Always replace them with new ones.(The chip parts include resistors,capacitors,diodes,transistors,etc).The negative pole of tantalum capacitors is highly susceptible to heat,so use special care when replacing them and check the operation afterwards.
6. Cautions in handling flexible PWB
   Before working with a soldering iron,make sure that the iron tip temperature is around 270℃.Take care not to apply the iron tip repeatedly(more than three times)to the same patterns.Also take care not to apply the tip with force.
7. Turn the unit OFF during disassembly and parts replacement.Recheck all work before you apply power to the unit.
8. Cautions in checking that the optical pickup lights up.
   The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up,keep your eyes more than 30cms away from the lens.Prolonged viewing of the laser within 30cms may damage your eyesight.
9. Cautions in handling the optical pickup
   The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body.Make sure to avoid electrostatic charges on your clothes or body,or discharge static electricity before handling the optical pickup.

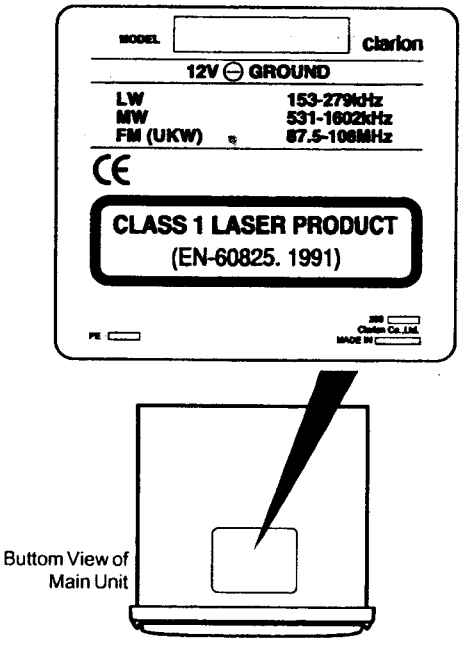
9-1. Laser diode
   The laser diode terminals are shorted for transportation in order to prevent electrostatic damage.After replacement,open the shorted circuit.When removing the pickup from the mechanism,short the terminals by soldering them to prevent this damage.

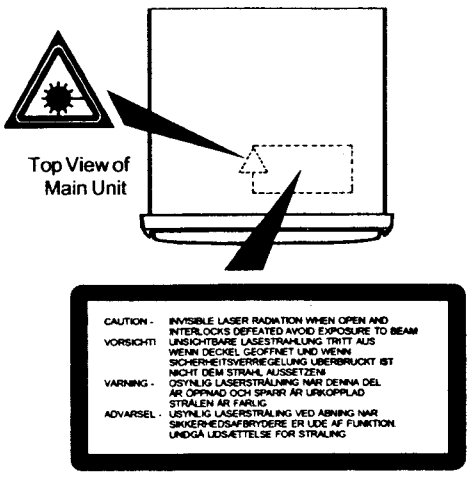
9-2. Actuator
   The actuator has a powerful magnetic circuit.If a magnetic material is put close to it.its characteristics will change.Ensure that no foreign substances enter through the ventilation slots in the cover.

9-3. Cleaning the lens
   Dust on the optical lens affects performance.To clean the lens,apply a small amount of isopropylalcohol to lens paper and wipe the lens gently.

## ■CAUTIONS

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUST". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.




Top View of
Main Unit
CAUTION - INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED AVOID EXPOSURE TO BEAM
VORSICHT! UNSICHTBARE LASERSTRAHLUNG TRITT AUS WENN DECKEL GEOFFNET UND WENN SICHERHEITSVERRIEGELUNG UBERBRUCKT IST NICHT DEM STRAHL AUSSETZEN!
VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD STRÅLEN ÄR FARLIG
ADVARSEL - USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING

## ■NOTES

1. For VW and Audi vehicles,change the position of fuse installation as shown on the diagram.(Figure 1)

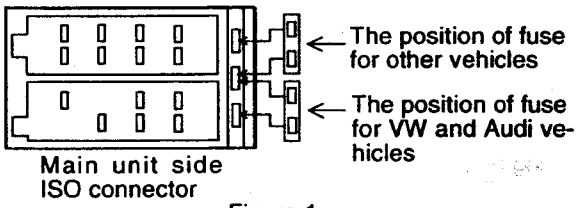



Figure 1

2. The lead include with the unit must be connected to the specified position of the vehicle's ISO connector in order to use the "triggered audio mute for cellular telephones" function.(Figure 2)

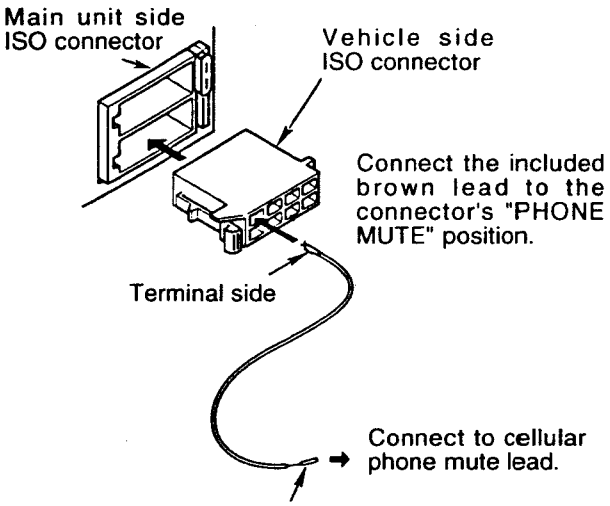

Main unit side
ISO connector
Vehicle side
ISO connector
Connect the included brown lead to the connector's "PHONE MUTE" position.
Terminal side
Connect to cellular phone mute lead.
Fasten using insulating tape,etc.,to prevent short-circuits at the connection.

Figure 2

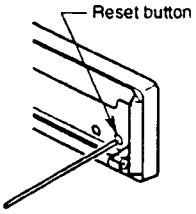
## ■ERROR DISPLAYS

**If an error occurs, one of the following displays is displayed. Take the measures described below to eliminate the problem.**

| Error Display | Cause | Measure | Model |
|---|---|---|---|
| CD ER2 | A CD is caught inside the CD deck and not ejected | This is a failure of CD deck's mechanism. | PE-2231E-B<br>PE-2270E-A |
| CD ER3 | A CD cannot be played due scratches, etc. | Replace with non-scratched, non-warped-disc. | PE-2270E-B |
| CDCH ER2 | A CD inside the CD changer is not loaded. | This is a failure of CD changer's mechanism. | PE-2231E-B |
| CDCH ER3 | A CD inside the CD changer cannot be played due to scratches, etc. | Replace with a non-scratched, non-warped-disc. | |
| CDCH ER6 | A CD inside the CD changer cannot be played because it is loaded upside-down | Eject the disc then reload it properly. | |

If an error display other than the ones described above appears, press the reset button.

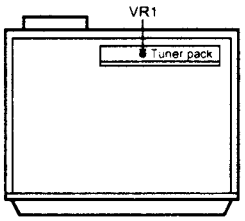
## ■ TROUBLESHOOTING

| Problem | Cause | Solution |
|---|---|---|
| Power does not turn on. | Fuse is blown. | Replace with a fuse of the same amperage. |
| (No sound is produced.) | Incorrect wiring. | Wire properly. |
| Compact disc cannot be loaded. | Another compact disc is already loaded. | Eject the compact disc before loading the new one. |
| Sound skips or is noisy. | Compact disc dirty. | Clean the compact disc with soft cloth. |
| | Compact disc is heaviiy scratched or warped. | Replace with a compact disc with no scratches. |
| Sound is bad directly after power is turned on. | Water droplets may from on the internal lens when the car is parked in a humid place. | Let dry for about 1 hour with the power on. |
| Nothing happens when buttons are pressed. | Microprocessor has maltunc-tioned due to noise, etc. | Turn off the power, then press the OPEN button and remove the DCP. |
| Display is not accurate. | | Press the reset button for about 2 seconds with a thin rod.   |
| | DCP or source unit connectors are dirty. | Wipe the dirt off with a soft cloth moistened with clean-ing alcohol. |

## ■ ADJUSTMENTS

| Item | Procedure | Measuring instrument |
|---|---|---|
| S-meter | 1. Input the 98.1MHz/30dB $\mu$(400Hz-MOD 30%)signal.<br>2. Turn on the power swtch. and,Press the AF button and CH6 button at the same time.(TEST MODE)<br>3. Adjust the reading of LCD indicator to "30----00" (3.0V±0.2V) by VR1. | SG |

Adjust point



# ■ EXPLANATION OF IC

■μPD178016GC-511-3B9 052-1308-00 Master Micro Computer

Outward Form

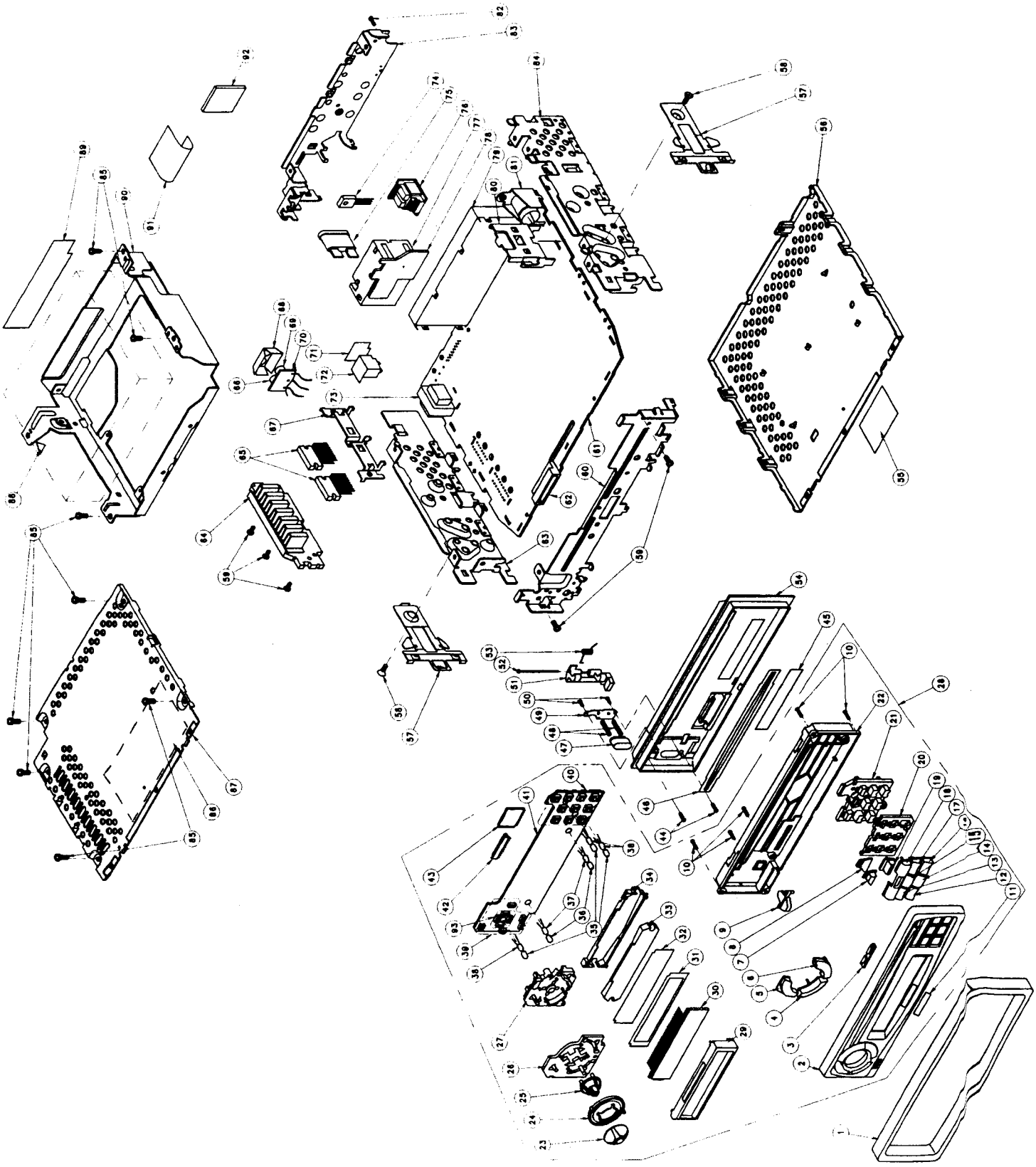
80 pins, plastic QFP

Terminal Description

| No. | Symbol | I/O | Function |
|---|---|---|---|
| 1 | $\overline{\text{CD TEMP}}$ | I | When the voltage on the terminal turns below 1/2 Vdd, it stops the mechanism as it judges the CD pickup is overheated |
| 2 | KEY A/D | I | Input terminal for detecting key pushed out of DCP/ EJECT/FUNCTION |
| 3 | S-METER | I | Connects FM S meter signal |
| 4 | RDS NOISE | I | Noise level detection terminal for FM RDS and SEEK |
| 5 | GND 2 | I | Not in use |
| 6 | RDS DISCHG | O | RDS output terminal for discharging the voltage detected by RDS NOISE |
| 7<br>8<br>9<br>10 | LCD SI<br>LCD SO<br>LCD SCK<br>LCD CE | I<br>O<br>O<br>O | Serial data communication line with LCD driver |
| 11 | $\overline{\text{C-BUS SRQ}}$ | I | Request signal input terminal reading status from slave microcomputer. When this terminal turns Low it detects the status reading requested |
| 12<br>13<br>14 | C-BUS SI<br>C-BUS SO<br>C-BUS SCK | I<br>O<br>O | C-BUS data communication line |
| 15 | $\overline{\text{AM ON}}$ | O | Output terminal for AM ON signal |
| 16 | $\overline{\text{FM ON}}$ | O | Output terminal for FM ON signal |
| 17 | $\overline{\text{5V REM}}$ | O | Outputs signal for 5V power ON around micro computer |
| 18 | +B REM | O | Outputs Hi by power ON, supplying +B power |
| 19 | $\overline{\text{SYS MUTE}}$ | O | Output terminal for system mute signal |
| 20 | SOFT MUTE | O | Output terminal for switching an FM SOFT MUTE constant |
| 21 | GND PORT | – | GND |
| 22 | VDD PORT | – | Power supply terminal |
| 23 | AM LOCAL | O | Outputs Hi when the first round starts in LOCAL SEEK and auto store. After receiving signal it returns to Hi output. |
| 24 | REM OUT SAV | O | Terminal to output signal to cancel remote-protection circuit latch. Outputs Hi pulse for 50 m Sec when power switch is turned ON. |
| 25 | RDS MUTE | O | RDS output terminal for noise reduction during follow-up motion |
| 26 | L.P.F. SW | O | Output terminal for switching time constant of FM L.P.F. |
| 27 | IF REQ | O | Output "H" during auto tuning in AM/FM mode. |
| 28 | AM IFC | I | Not in use |
| 29 | FM IFC | I | Not in use |
| 30 | VDD PLL | – | PLL power supply terminal |
| 31<br>32 | VCO H<br>VCO L | I | Not in use |
| 33 | GND | – | GND |
| 34<br>35 | EO 0<br>EO 1 | O | Not in use |
| 36 | IC | – | GND |
| 37 | AM SD | I | Detection terminal for AM SD. Judges SD ON by Hi |
| 38 | FM SD | I | Detection terminal for FM SD. Judges SD ON by Hi |
| 39 | $\overline{\text{FM ST}}$ | I | Detecting terminal for FM stereo indicator |
| 40<br>41<br>42<br>43 | PLL DI<br>PLL SCK<br>PLL DO<br>PLL CE | I<br>O<br>O<br>O | PLL data communication terminal with PLL IC |
| 44 | CD 8V REM | O | Outputs "L" to turn on a power of CD mechanism. |
| 45 | RDS +B REM | O | Spare terminal for RDS decoder power ON |
| 46 | BLINKING LED | O | LED flashing output signal |
| 47 | $\overline{\text{FM LOCAL}}$ | O | Outputs Low when the first round starts in LOCAL SEEK and auto store. After receiving signal it returns to Hi output |
| 48 | $\overline{\text{CD 5V REM}}$ | O | Outputs "L" to turn on a power supply of CD IC and DAC IC. |
| 49<br>50 | EVOL CLK<br>EVOL DATA | O | Serial data communication line to electronic volume IC |
| 51 | $\overline{\text{LD ON}}$ | O | Outputs "L" to turn on a Laser diode. |
| 52 | $\overline{\text{CHAK-SW}}$ | I | Terminal to detect the completion of CD DISC chucking. When the chucking SW is ON after DISC is loaded. Low is input. |
| 53<br>54 | MCCW<br>MCW | O | In DISC loading/EJECT mode, the condition of these two terminals are as follows:<br>Loading: MCW Hi, MCCW Lo<br>EJECT: MCW Lo, MCCW Hi<br>Brake: MCW Hi, MCCW Hi<br>Stop: MCW Lo, MCCW Lo |
| 55<br>56<br>57 | C<br>B<br>A | I | Terminal to detect the condition of DISC loading, chucking or others. When DISC is not inserted, Low is input for A/B/C terminal |
| 58 | SQSO | I | Data input terminal to read SUB-Q data from CD IC |
| 59 | SQCK | O | Clock signal output terminal to read SUB-Q signal from CD IC |
| 60 | SENS | I | Controls CD by inputting a signal such as FZC, AS, TZC, SSTOP, BUSY, etc. from CD IC. |
| 61 | $\overline{\text{XRST}}$ | O | Reset output terminal for CD/servo IC |
| 62 | CLK | O | Clock output terminal for CD/servo IC control |
| 63 | $\overline{\text{XLAT}}$ | O | Latch output terminal for CD/servo IC control |
| 64 | DATA | O | Data output terminal for CD/servo IC control |
| 65 | SCLK | O | Clock output to read coefficient from CD IC |
| 66 | RDS DATA | I | Inputs data from RDS decoder |
| 67 | RDS CLK | I | Clock signal input from RDS decoder |
| 68 | $\overline{\text{B/U DET}}$ | I | When this terminal turns Low, micro computer detects the B/U OFF and turns micro computer to STOP mode, stopping oscillation |
| 69 | ACC DET | I | ON/OFF detection terminal for ACC power supply |
| 70 | GND | I | GND |
| 71 | $\overline{\text{KEY INT}}$ | I | Key insertion input terminal. Low when EJECT key or FUNC(POWER) key pushed. When this terminal turns Low, key A/D terminal detects the key pushed |
| 72 | SCOR | I | Microcomputer takes in SUB-Q data immediately after inputting Hi pulse. |
| 73 | PHONE INT | I | Input terminal for phone interrupt |
| 74 | REG CPU | – | Regulator terminal for CPU power supply. Connected to pass con against noise |
| 75 | GND | – | GND |
| 76<br>77 | X2<br>X1 | –<br>I | Connecting terminal for oscillating crystal for main system clock |
| 78 | REG OSC | – | Power supply regulator terminal for oscillator. Connected to pass con against noise |
| 79 | VDD | – | Power supply terminal |
| 80 | $\overline{\text{RESET}}$ | I | Micro computer will stop by turning this terminal to "Low" |

# ■EXPLODED VIEW • PARTS LIST

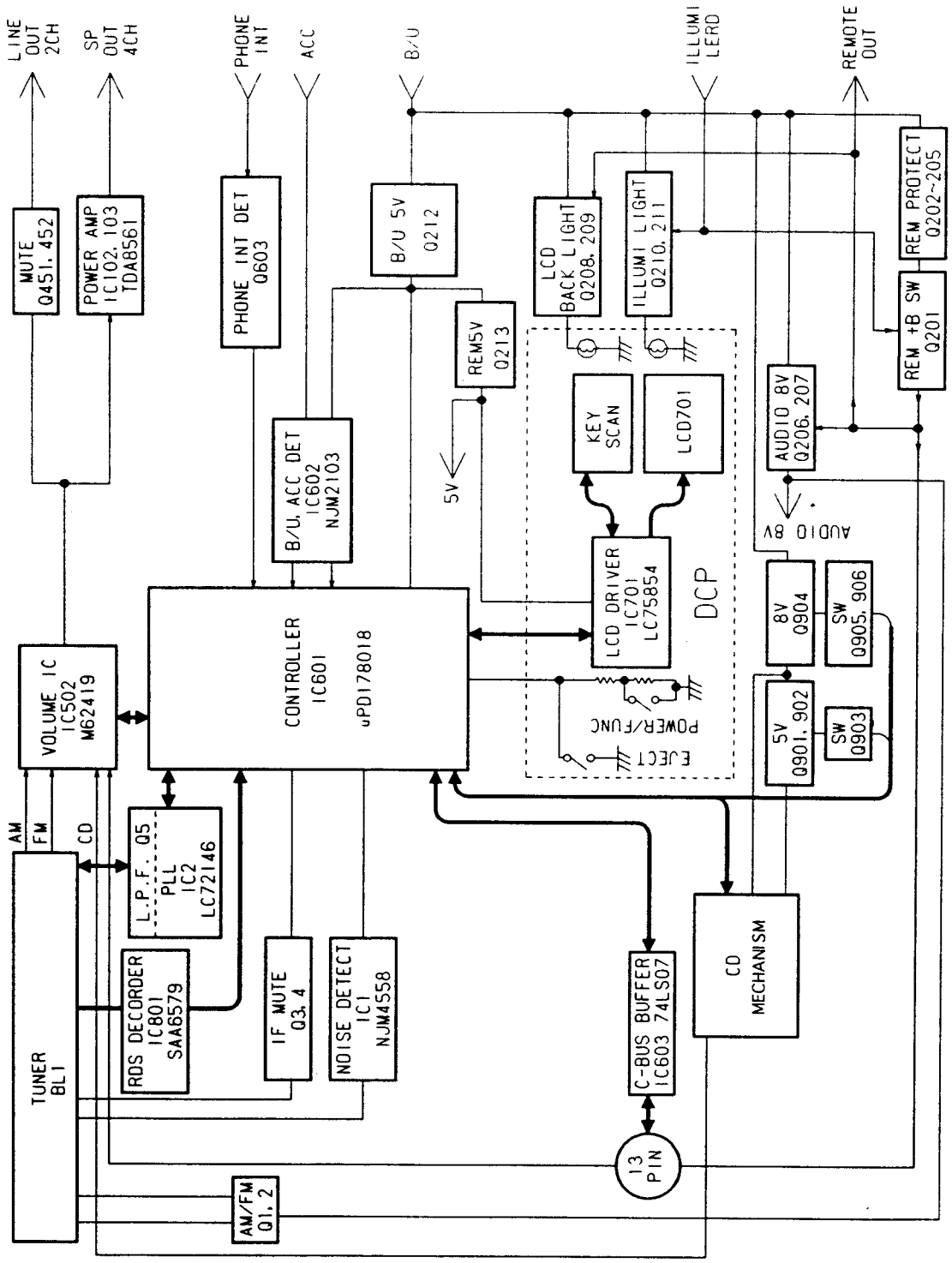
Main section



| NO | PART NO. | DESCRIPTION | | Q'TY |
|---|---|---|---|---|
| 1 | 370-9006-32 | OUTER-ES | | 1 |
| 2 | 370-5640-00 | ESCUTCHEON | (PE-2231E-B) | 1 |
| 2 | 370-5640-04 | ESCUTCHEON | (PE-2270E-A/B) | 1 |
| 3 | 335-4874-20 | DOOR ILLUMI | | 1 |
| 4 | 382-4394-21 | BUTTON [BAND/AM] | (PE-2231E-B) | 1 |
| 4 | 382-4394-11 | BUTTON [BAND/AM] | (PE-2270E-A/B) | 1 |
| 5 | 382-4393-20 | BUTTON (FUND/POWER) | | 1 |
| 6 | 382-4396-22 | BUTTON [DN/UP] | (PE-2231E-B) | 1 |
| 6 | 382-4396-11 | BUTTON[PS/AS] | (PE-2270E-A/B) | 1 |
| 7 | 382-4453-00 | BUTTON [EJECT] | | 1 |
| 8 | 335-5286-00 | HOLDER [EJECT] | | 1 |
| 9 | 382-4470-20 | BUTTON [RELEASE] | | 1 |
| 10 | 716-1721-00 | P-TIGHT SCREW | | 5 |
| 11 | 378-0134-00 | BADGE | (PE-2231E-B) | 1 |
| 11 | 378-0148-00 | BADGE | (PE-2270E-A/B) | 1 |
| 12 | 382-4421-22 | BUTTON [4] | | 1 |
| 13 | 382-4418-21 | BUTTON [1 SCN] | | 1 |
| 14 | 382-4422-21 | BUTTON [5 >/ II] | | 1 |
| 15 | 382-4419-21 | BUTTON [2 RPT] | | 1 |
| 16 | 382-4423-21 | BUTTON [6 TOP] | | 1 |
| 17 | 382-4420-21 | BUTTON [3 RDM] | | 1 |
| 18 | 382-4414-21 | BUTTON [AF/PTY] | | 1 |
| 19 | 382-4413-20 | BUTTON [TA] | | 1 |
| 20 | 345-7817-21 | SPONGE [RIGHT] | | 1 |
| 21 | 335-5306-00 | ILLUMI PLATE [RIGHT] | | 1 |
| 22 | 335-5296-00 | REAR COVER | | 1 |
| 23 | 380-5394-20 | KNOB | | 1 |
| 24 | 335-5297-00 | JOB PLATE | | 1 |
| 25 | 335-5298-00 | JOB ARM | | 1 |
| 26 | 345-7818-21 | SPONGE [LEFT] | | 1 |
| 27 | 335-5307-00 | ILLUMI PLATE [LEFT] | | 1 |
| 28 | 940-1876A | DCP-ASSY | (PE-2231E-B) | 1 |
| 28 | 940-1874A | DCP-ASSY | (PE-2270E-A) | 1 |
| 28 | 940-1875A | DCP-ASSY | (PE-2270E-B) | 1 |
| 29 | 331-2014-00 | LCD COVER | | 1 |
| 30 | 379-1113-41 | INDICATOR | | 1 |
| 31 | 347-5366-20 | FILM | | 1 |
| 32 | 347-5365-20 | SHADE | | 1 |
| 33 | 335-5308-20 | LCD ILLUMI | | 1 |
| 34 | 335-5309-20 | LCD HOLDER | | 1 |
| 35 | 345-4441-37 | LAMP CAP [BLUE] | (PE-2231E-B) | 3 |
| 35 | 345-4441-58 | LAMP CAP [AMBER] | (PE-2270E-A) | 3 |
| 35 | 345-2830-20 | LAMP CAP [GREEN] | (PE-2270E-B) | 3 |
| 36 | 345-4441-81 | LAMP CAP [GREEN] | (PE-2231E-B) | 2 |
| 36 | 345-4441-58 | LAMP CAP [AMBER] | (PE-2270E-A) | 2 |
| 36 | 345-2830-20 | LAMP CAP [GREEN] | (PE-2270E-B) | 2 |
| 37 | 017-0441-00 | PILOT LAMP | (PE-2231E-B) | 2 |
| 37 | 017-0414-00 | PILOT LAMP | (PE-2270E-A/B) | 2 |
| 38 | 017-0444-00 | PILOT LAMP | (PE-2231E-B) | 3 |
| 38 | 017-0410-00 | PILOT LAMP | (PE-2270E-A/B) | 3 |
| 39 | 013-3812-11 | TACT SWITCH | | 5 |
| 40 | 013-6002-50 | TACT SWITCH | | 10 |
| 41 | 039-0889-00 | SWITCH PWB | | 1 |

| NO | PART NO. | DESCRIPTION | | Q'TY |
|---|---|---|---|---|
| 42 | 076-0522-00 | PLUG | | 1 |
| 43 | 051-6013-00 | IC | | 1 |
| 44 | 716-1792-00 | SCREW | | 2 |
| 45 | 291-0074-00 | STICKER | | 1 |
| 46 | 346-0097-00 | LEATHER SHEET | | 1 |
| 47 | 382-4078-20 | BUTTON [PUST OUT] | | 1 |
| 48 | 750-3173-00 | SPRING | | 2 |
| 49 | 331-2002-20 | HOOK PLATE | | 1 |
| 50 | 716-0778-00 | WAVE SCREW | | 2 |
| 51 | 335-5312-20 | HOOK | | 1 |
| 52 | 341-1627-20 | SHAFT | | 1 |
| 53 | 750-3219-20 | SPRING | | 1 |
| 54 | 370-5655-00 | INNER-ES | | 1 |
| 55 | 286-8738-00 | SET PLATE | (PE-2231E-B) | 1 |
| 55 | 286-8963-00 | SET PLATE | (PE-2270E-A/B) | 1 |
| 56 | 304-0440-20 | LOWER COVER | | 1 |
| 57 | 750-2796-0L | SPRING | | 2 |
| 58 | 714-5008-41 | M/C SCREW | | 2 |
| 59 | 731-3006-80 | TAPTIGHT SCREW | | 5 |
| 60 | 309-0664-21 | FRONT PLATE | | 1 |
| 61 | 039-0888-00 | MAIN PWB | | 1 |
| 62 | 074-1112-00 | OUTLET SOCKET | | 1 |
| 63 | 305-0242-20 | SIDE COVER [LEFT] | | 1 |
| 64 | 313-1643-00 | HEAT SINK | | 1 |
| 65 | 051-2009-00 | IC [POWER] | | 2 |
| 66 | 075-9004-00 | RCA JACK [RED] | | 1 |
| 67 | 331-1766-21 | IC HOLDER | | 1 |
| 68 | 347-5216-00 | INSULATOR | | 1 |
| 69 | 075-9003-00 | RCA JACK [WHITE] | | 1 |
| 70 | 039-0607-01 | RCA PWB | | 1 |
| 71 | 347-5291-00 | FILM | | 1 |
| 72 | 331-1862-00 | SHIELD CASE | | 1 |
| 73 | 009-9006-60 | CHOKE | | 1 |
| 74 | 102-3420-00 | TRANSISTOR | | 1 |
| 75 | 060-0057-06 | AUTO FUSE | | 1 |
| 76 | 074-1126-10 | OUTLET SOCKET | (ONLY PE-2231E-B) | 1 |
| 77 | 074-1115-00 | OUTLET SOCKET | | 1 |
| 78 | 039-0887-20 | ISO PWB | | 1 |
| 79 | 880-2080B | TUNER PACK | | 1 |
| 80 | 313-1610-01 | HEAT SINK | | 1 |
| 81 | 092-9000-00 | ANT RECEPT | | 1 |
| 82 | 714-3006-81 | M/C SCREW | | 1 |
| 83 | 307-0580-00 | REAR PLATE | | 1 |
| 84 | 305-0247-21 | SIDE COVER [RIGHT] | | 1 |
| 85 | 731-3006-80 | TAPTIGHT SCREW | | 8 |
| 86 | 285-1340-00 | GUIDE LABER [CAUTION] | | 1 |
| 87 | 303-0457-20 | UPPER COVER | | 1 |
| 88 | 285-1426-00 | GUIDE LABEL [LASER] | | 1 |
| 89 | 347-5215-00 | INSULATOR | | 1 |
| 90 | 929-0065-80 | CD MECHANISM | | 1 |
| 91 | 816-2376-00 | FLAT CABLE | | 1 |
| 92 | 345-5619-00 | SPACER | (ONLY PE-2270E-A/B) | 1 |
| 93 | 013-6001-50 | TACT SW | | 4 |

## ■BLOCK DIAGRAM




## ■ELECTRICAL PARTS LIST

Note) Several different parts of the same reference number are alternative parts. One of those parts is used in the set.

### SW PWB section

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| C 701 | 178-6812-05 | 680pF |
| C 702 | 178-1032-05 | 0.01μ F |
| I/C 701 | 051-6013-00 | LC75854W |
| P 701 | 076-0522-00 | PLUG |
| PL 701 | 017-0444-00 | PILOT LAMP (DRX 5375) |
| | 017-0410-00 | PILOT LAMP (DRB 4475) |
| PL 702 | 017-0444-00 | PILOT LAMP (DRX 5375) |
| | 017-0410-00 | PILOT LAMP (DRB 4475) |
| PL 703 | 017-0444-00 | PILOT LAMP (DRX 5375) |
| | 017-0410-00 | PILOT LAMP (DRB 4475) |
| PL 704 | 017-0441-00 | PILOT LAMP (DRX 5375) |
| | 017-0414-00 | PILOT LAMP (DRB 4475) |
| PL 705 | 017-0441-00 | PILOT LAMP (DRX 5375) |
| | 017-0414-00 | PILOT LAMP (DRB 4475) |
| R 701 | 117-1021-10 | 1/10W 1kΩ |
| R 702 | 117-1021-10 | 1/10W 1kΩ |
| R 703 | 117-1021-10 | 1/10W 1kΩ |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| R 704 | 117-3921-10 | 1/10W 3.9kΩ |
| R 705 | 117-1241-10 | 1/10W 120kΩ |
| R 706 | 117-6831-10 | 1/10W 68kΩ |
| R 707 | 117-1031-10 | 1/10W 10kΩ |
| S 701 | 013-3812-11 | |
| S 701 | 013-3812-11 | |
| S 702 | 013-6002-50 | |
| S 703 | 013-3812-11 | |
| S 704 | 013-3812-11 | |
| S 706 | 013-3812-11 | |
| S 707 | 013-3812-11 | |
| S 708 | 013-3812-11 | |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| S 709 | 013-3812-11 | |
| S 710 | 013-3812-11 | |
| S 711 | 013-6002-50 | |
| S 712 | 013-6002-50 | |
| S 713 | 013-6002-50 | |
| S 714 | 013-6002-50 | |
| S 715 | 013-6002-50 | |
| S 716 | 013-6002-50 | |
| S 717 | 013-6002-50 | |
| S 718 | 013-6002-50 | |
| S 719 | 013-6002-50 | |

## Main PWB section

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| ANT 1 | 092-9000-00 | ANT-RECEPT |
| BL 1 | 880-2080B | TUNER |
| C 1 | 176-1801-00 | 18pF CH |
| C 2 | 178-1032-05 | 0.01 μF |
| C 5 | 182-1053-63 | 50V1 μF |
| C 6 | 178-6822-05 | 6800pF |
| C 7 | 178-1042-78 | 0.1 μF |
| C 9 | 182-4763-23 | 10V47 μF |
| C 10 | 178-1032-05 | 0.01 μF |
| C 11 | 176-1011-00 | 100pF CH |
| C 12 | 178-1222-55 | 1200pF |
| C 13 | 178-8222-55 | 8200pF |
| C 14 | 176-1011-00 | 100pF CH |
| C 17 | 178-2232-05 | 0.022 μF |
| C 18 | 178-2232-05 | 0.022 μF |
| C 19 | 178-4732-05 | 0.047 μF |
| C 21 | 178-1522-05 | 1500pF |
| C 22 | 176-1801-00 | 18pF CH |
| C 23 | 176-1501-00 | 15pF CH |
| C 24 | 182-4763-13 | 6.3V47 μF |
| C 25 | 178-1032-05 | 0.01 μF |
| C 26 | 176-1011-00 | 100pF CH |
| C 27 | 176-1011-00 | 100pF CH |
| C 28 | 176-1011-00 | 100pF CH |
| C 29 | 176-1011-00 | 100pF CH |
| C 30 | 182-1053-63 | 50V1 μF |
| C 31 | 178-1042-78 | 0.1 μF |
| C 32 | 182-4763-23 | 10V47 μF |
| C 101 | 182-2253-62 | 50V2.2 μF |
| C 102 | 182-2253-62 | 50V2.2 μF |
| C 103 | 182-2253-62 | 50V2.2 μF |
| C 104 | 182-2253-62 | 50V2.2 μF |
| C 105 | 178-2232-05 | 0.022 μF |
| C 201 | 182-1063-33 | 16V10 μF |
| C 202 | 184-2283-32 | 16V2200 μF |
| C 203 | 172-1041-11 | 0.1 μF |
| C 204 | 182-1063-33 | 16V10 μF |
| C 206 | 182-1063-33 | 16V10 μF |
| C 207 | 178-4732-05 | 0.047 μF |
| C 208 | 182-1063-33 | 16V10 μF |
| C 209 | 178-1032-05 | 0.01 μF |
| C 451 | 182-1063-33 | 16V10 μF |
| C 452 | 182-1063-33 | 16V10 μF |
| C 501 | 182-3343-63 | 50V0.33 μF |
| C 502 | 182-2253-63 | 50V2.2 μF |
| C 503 | 182-1063-33 | 16V10 μF |
| C 504 | 182-1063-33 | 16V10 μF |
| C 505 | 182-2253-63 | 50V2.2 μF |
| C 506 | 182-1063-33 | 16V10 μF |
| C 507 | 182-1063-33 | 16V10 μF |
| C 510 | 176-5601-00 | 56pF CH |
| C 511 | 176-5601-00 | 56pF CH |
| C 512 | 182-4753-53 | 35V4.7 μF |
| C 513 | 182-4753-53 | 35V4.7 μF |
| C 514 | 176-1511-00 | 150pF CH |
| C 515 | 176-1511-00 | 150pF CH |
| C 516 | 178-8232-55 | 0.082 μF |
| C 517 | 182-4753-53 | 35V4.7 μF |
| C 518 | 178-8232-55 | 0.082 μF |
| C 519 | 182-4753-53 | 35V4.7 μF |
| C 520 | 182-2263-33 | 16V22 μF |
| C 521 | 182-2263-33 | 16V22 μF |
| C 522 | 178-5622-05 | 5600pF |
| C 523 | 178-5632-05 | 0.056 μF |
| C 524 | 178-5622-05 | 5600pF |
| C 525 | 178-5622-05 | 5600pF |
| C 526 | 178-5632-05 | 0.056 μF |
| C 527 | 178-5622-05 | 5600pF |
| C 528 | 182-1063-33 | 16V10 μF |
| C 529 | 182-1063-33 | 16V10 μF |
| C 530 | 184-2273-22 | 10V220 μF |
| C 531 | 182-4763-33 | 16V47 μF |
| C 601 | 178-1042-78 | 0.1 μF |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| C 610 | 178-4732-05 | 0.047 μF |
| C 613 | 178-4732-05 | 0.047 μF |
| C 613 | 182-2263-13 | 6.3V22 μF |
| C 614 | 178-4732-05 | 0.047 μF |
| C 616 | 178-4732-05 | 0.047 μF |
| C 617 | 178-2232-05 | 0.022 μF |
| C 619 | 178-4732-05 | 0.047 μF |
| C 801 | 178-3312-05 | 330pF |
| C 802 | 182-2253-63 | 50V2.2 μF |
| C 803 | 178-5612-05 | 560pF |
| C 804 | 182-4763-13 | 6.3V47 μF |
| C 805 | 178-1042-78 | 0.1 μF |
| C 806 | 176-4701-00 | 47pF CH |
| C 807 | 176-8201-00 | 82pF CH |
| C 810 | 178-3312-05 | 330pF |
| C 811 | 178-5612-05 | 560pF |
| C 812 | 178-5612-05 | 560pF |
| C 813 | 178-2232-05 | 0.022 μF |
| C 814 | 178-2232-05 | 0.022 μF |
| C 815 | 178-1032-05 | 0.01 μF |
| C 816 | 176-1011-00 | 100pF CH |
| C 817 | 178-3312-05 | 330pF |
| C 901 | 182-1063-33 | 16V10 μF |
| C 902 | 182-1063-33 | 16V10 μF |
| C 904 | 178-1022-05 | 1000pF |
| D 201 | 001-0330-00 | 1SS119 |
| D 202 | 001-0330-00 | 1SS119 |
| D 203 | 001-0330-00 | 1SS119 |
| D 204 | 001-0188-01 | 1S1885A |
| D 205 | 001-0330-00 | 1SS119 |
| D 206 | 001-0330-00 | 1SS119 |
| D 207 | 001-0377-46 | MA4091L |
| D 208 | 001-0377-46 | MA4091L |
| D 209 | 001-0503-33 | HZS6B2L |
| D 210 | 001-0466-00 | S5688B |
| D 211 | 001-0330-00 | 1SS119 |
| D 501 | 001-0377-23 | MA4043M |
| D 601 | 001-0330-00 | 1SS119 |
| D 602 | 001-0659-00 | LED |
| D 603 | 001-0589-00 | 1SS145 |
| D 604 | 001-0330-00 | 1SS119 |
| D 605 | 001-0330-00 | 1SS119 |
| D 606 | 001-0330-00 | 1SS119 |
| D 607 | 001-0330-00 | 1SS119 |
| D 608 | 001-0423-19 | MA4056 |
| D 609 | 001-0330-00 | 1SS119 |
| D 801 | 001-0330-00 | 1SS119 |
| D 802 | 001-0330-00 | 1SS119 |
| D 901 | 001-0377-32 | MA4056M |
| D 902 | 001-0377-45 | MA4082H |
| IC 1 | 051-0422-51 | NJM4558D |
| IC 2 | 051-6201-00 | LC72146M |
| IC 102 | 051-2009-00 | TDA8561Q |
| IC 103 | 051-2009-00 | TDA8561Q |
| IC 502 | 051-5008-00 | M62419FP |
| IC 601 | 052-1308-00 | μPD178016-511-3B9 |
| IC 602 | 051-0869-50 | NJM2103D |
| IC 603 | 051-0160-01 | HD74LS07P |
| IC 801 | 051-1819-10 | TDA7479D |
| J 601 | 074-1112-00 | OUTLET SOCKET |
| J 602 | 074-1126-10 | OUTLET SOCKET |
| L 1 | 010-2330-17 | 5.6 μH |
| L 2 | 010-2230-38 | 220 μH |
| L 601 | 010-2230-64 | 2.2 μH |
| L 602 | 010-2230-26 | 22 μH |
| Q 1 | 100-1298-00 | 2SA1298 |
| Q 2 | 100-1162-00 | 2SA1162 |
| Q 3 | 103-1306-00 | 2SD1306 |
| Q 4 | 125-0002-03 | RN2403 |
| Q 5 | 108-0669-00 | 2SK669 |
| Q 201 | 101-1237-00 | 2SB1237 |
| Q 202 | 102-2712-00 | 2SC2712 |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| Q 203 | 125-2004-03 | RN1403 |
| Q 204 | 125-2004-03 | RN1403 |
| Q 205 | 100-1162-00 | 2SA1162 |
| Q 206 | 103-1858-00 | 2SD1858 |
| Q 207 | 103-1858-00 | 2SD1858 |
| Q 208 | 103-1858-00 | 2SD1858 |
| Q 209 | 103-1858-00 | 2SD1858 |
| Q 210 | 101-1237-00 | 2SB1237 |
| Q 211 | 102-2458-00 | 2SC2458 |
| Q 212 | 103-1858-00 | 2SD1858 |
| Q 213 | 100-1162-00 | 2SA1162 |
| Q 451 | 103-1306-00 | 2SD1306 |
| Q 452 | 103-1306-00 | 2SD1306 |
| Q 601 | 125-2003-03 | RN1203 |
| Q 602 | 125-2004-03 | RN1403 |
| Q 603 | 100-1162-00 | 2SA1162 |
| Q 604 | 125-2003-06 | RN1206 |
| Q 605 | 125-2003-06 | RN1206 |
| Q 606 | 100-1162-00 | 2SA1162 |
| Q 802 | 125-2004-03 | RN1403 |
| Q 901 | 103-1858-00 | 2SD1858 |
| Q 902 | 103-1858-00 | 2SD1858 |
| Q 903 | 125-0003-02 | RN2202 |
| Q 904 | 102-3420-00 | 2SC3420 |
| Q 904 | 103-1683-00 | 2SD1683 |
| Q 905 | 125-0003-02 | RN2202 |
| Q 906 | 125-2003-02 | RN1202 |
| R 1 | 117-8221-10 | 1/10W 8.2kΩ |
| R 2 | 111-3311-91 | 1/4WS 330Ω |
| R 3 | 117-1831-10 | 1/10W 18kΩ |
| R 4 | 117-1021-10 | 1/10W 1kΩ |
| R 5 | 117-1231-10 | 1/10W 12kΩ |
| R 6 | 117-2231-10 | 1/10W 22kΩ |
| R 7 | 117-1021-10 | 1/10W 1kΩ |
| R 8 | 117-2241-10 | 1/10W 220kΩ |
| R 9 | 117-1031-10 | 1/10W 10kΩ |
| R 10 | 117-1031-10 | 1/10W 10kΩ |
| R 11 | 117-1031-10 | 1/10W 10kΩ |
| R 12 | 117-1021-10 | 1/10W 1kΩ |
| R 13 | 117-1031-10 | 1/10W 10kΩ |
| R 14 | 117-1021-10 | 1/10W 1kΩ |
| R 15 | 117-3331-10 | 1/10W 33kΩ |
| R 16 | 111-1021-91 | 1/4WS 1kΩ |
| R 17 | 117-1231-10 | 1/10W 12kΩ |
| R 18 | 111-2711-91 | 1/4WS 270Ω |
| R 19 | 117-2221-10 | 1/10W 2.2kΩ |
| R 21 | 117-5631-10 | 1/10W 56kΩ |
| R 22 | 117-1021-10 | 1/10W 1kΩ |
| R 23 | 117-2221-10 | 1/10W 2.2kΩ |
| R 24 | 117-1021-10 | 1/10W 1kΩ |
| R 25 | 117-1021-10 | 1/10W 1kΩ |
| R 26 | 117-1021-10 | 1/10W 1kΩ |
| R 27 | 117-1001-10 | 1/10W 10Ω |
| R 101 | 117-4721-10 | 1/10W 4.7kΩ |
| R 102 | 117-4721-10 | 1/10W 4.7kΩ |
| R 103 | 117-4721-10 | 1/10W 4.7kΩ |
| R 104 | 117-4721-10 | 1/10W 4.7kΩ |
| R 201 | 117-4721-10 | 1/10W 4.7kΩ |
| R 202 | 111-1221-91 | 1/4WS 1.2kΩ |
| R 203 | 111-1031-91 | 1/4WS 10kΩ |
| R 204 | 111-1591-91 | 1/4WS 1.5Ω |
| R 205 | 111-1591-91 | 1/4WS 1.5Ω |
| R 206 | 111-1591-91 | 1/4WS 1.5Ω |
| R 207 | 111-1591-91 | 1/4WS 1.5Ω |
| R 208 | 111-2221-91 | 1/4WS 2.2kΩ |
| R 209 | 117-1031-10 | 1/10W 10kΩ |
| R 210 | 117-1031-10 | 1/10W 10kΩ |
| R 211 | 117-1091-10 | 1/10W 1Ω |
| R 212 | 117-1091-10 | 1/10W 1Ω |
| R 213 | 111-2711-91 | 1/4WS 270Ω |
| R 214 | 111-1091-91 | 1/4WS 1Ω |
| R 215 | 111-1091-91 | 1/4WS 1Ω |
| R 216 | 111-2711-91 | 1/4WS 270Ω |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| R 217 | 111-2231-91 | 1/4WS 22kΩ |
| R 218 | 111-1031-91 | 1/4WS 10kΩ |
| R 219 | 111-1021-91 | 1/4WS 1kΩ |
| R 220 | 117-4721-10 | 1/10W 4.7kΩ |
| R 221 | 117-3921-10 | 1/10W 3.9kΩ |
| R 222 | 117-1021-10 | 1/10W 1kΩ |
| R 223 | 117-1021-10 | 1/10W 1kΩ |
| R 224 | 117-1031-10 | 1/10W 10kΩ |
| R 225 | 117-1031-10 | 1/10W 10kΩ |
| R 226 | 111-1521-91 | 1/4WS 1.5kΩ |
| R 227 | 117-2231-10 | 1/10W 22kΩ |
| R 228 | 117-2231-10 | 1/10W 22kΩ |
| R 229 | 111-2201-91 | 1/4WS 22Ω |
| R 230 | 111-2711-91 | 1/4WS 270Ω |
| R 231 | 111-2201-91 | 1/4WS 22Ω |
| R 451 | 117-1031-10 | 1/10W 10kΩ |
| R 452 | 117-1031-10 | 1/10W 10kΩ |
| R 453 | 117-3311-10 | 1/10W 330Ω |
| R 454 | 111-1021-91 | 1/4WS 1kΩ |
| R 456 | 117-3311-10 | 1/10W 330Ω |
| R 501 | 117-1031-10 | 1/10W 10kΩ |
| R 502 | 117-3331-10 | 1/10W 33kΩ |
| R 503 | 117-2231-10 | 1/10W 22kΩ |
| R 504 | 117-3331-10 | 1/10W 33kΩ |
| R 505 | 117-1031-10 | 1/10W 10kΩ |
| R 506 | 117-3331-10 | 1/10W 33kΩ |
| R 507 | 117-2231-10 | 1/10W 22kΩ |
| R 508 | 117-3331-10 | 1/10W 33kΩ |
| R 509 | 117-5131-10 | 1/10W 51kΩ |
| R 510 | 117-5131-10 | 1/10W 51kΩ |
| R 511 | 117-6831-10 | 1/10W 68kΩ |
| R 512 | 117-6831-10 | 1/10W 68kΩ |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| R 513 | 117-6821-10 | 1/10W 6.8kΩ |
| R 514 | 117-6821-10 | 1/10W 6.8kΩ |
| R 515 | 111-3311-91 | 1/4WS 330Ω |
| R 601 | 111-8211-91 | 1/4WS 820Ω |
| R 602 | 111-1031-91 | 1/4WS 10kΩ |
| R 603 | 111-4721-91 | 1/4WS 4.7kΩ |
| R 604 | 111-1031-91 | 1/4WS 10kΩ |
| R 605 | 117-1031-10 | 1/10W 10kΩ |
| R 606 | 117-1041-10 | 1/10W 100kΩ |
| R 607 | 117-1031-10 | 1/10W 10kΩ |
| R 608 | 117-3321-10 | 1/10W 3.3kΩ |
| R 609 | 117-1041-10 | 1/10W 100kΩ |
| R 610 | 111-2231-91 | 1/4WS 22kΩ |
| R 611 | 117-1031-10 | 1/10W 10kΩ |
| R 612 | 117-4711-10 | 1/10W 470Ω |
| R 613 | 111-2231-91 | 1/4WS 22kΩ |
| R 614 | 117-4731-10 | 1/10W 47kΩ |
| R 615 | 117-1541-10 | 1/10W 150kΩ |
| R 616 | 117-4731-10 | 1/10W 47kΩ |
| R 617 | 032-0092-81 | 1/10W 180kΩ |
| R 618 | 032-0092-28 | 1/10W 62kΩ |
| R 619 | 117-8221-10 | 1/10W 8.2kΩ |
| R 620 | 111-1831-91 | 1/4WS 18kΩ |
| R 621 | 117-4721-10 | 1/10W 4.7kΩ |
| R 622 | 117-4721-10 | 1/10W 4.7kΩ |
| R 623 | 117-4721-10 | 1/10W 4.7kΩ |
| R 624 | 117-1031-10 | 1/10W 10kΩ |
| R 625 | 117-1031-10 | 1/10W 10kΩ |
| R 626 | 117-1021-10 | 1/10W 1kΩ |
| R 627 | 117-1021-10 | 1/10W 1kΩ |
| R 628 | 117-1031-10 | 1/10W 10kΩ |
| R 629 | 117-1021-10 | 1/10W 1kΩ |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| R 630 | 117-1041-10 | 1/10W 100kΩ |
| R 631 | 117-2231-10 | 1/10W 22kΩ |
| R 632 | 117-4321-10 | 1/10W 4.3kΩ |
| R 633 | 117-1041-10 | 1/10W 100kΩ |
| R 634 | 111-4721-91 | 1/4WS 4.7kΩ |
| R 635 | 111-4721-91 | 1/4WS 4.7kΩ |
| R 801 | 117-2221-10 | 1/10W 2.2kΩ |
| R 802 | 117-3331-10 | 1/10W 33kΩ |
| R 803 | 117-3321-10 | 1/10W 3.3kΩ |
| R 804 | 117-2231-10 | 1/10W 22kΩ |
| R 805 | 117-1031-10 | 1/10W 10kΩ |
| R 806 | 117-1231-10 | 1/10W 12kΩ |
| R 807 | 117-1041-10 | 1/10W 100kΩ |
| R 808 | 117-1031-10 | 1/10W 10kΩ |
| R 809 | 117-1031-10 | 1/10W 10kΩ |
| R 810 | 117-2211-10 | 1/10W 220Ω |
| R 901 | 111-1091-91 | 1/4WS 1Ω |
| R 902 | 111-1091-91 | 1/4WS 1Ω |
| R 903 | 111-2211-91 | 1/4WS 220Ω |
| R 904 | 111-3311-91 | 1/4WS 330Ω |
| R 907 | 111-1041-91 | 1/4WS 100kΩ |
| R 908 | 111-1041-91 | 1/4WS 100kΩ |
| R 909 | 111-1041-91 | 1/4WS 100kΩ |
| R 910 | 111-4731-91 | 1/4WS 47kΩ |
| S 601 | 013-3932-00 | DSP-201M-SOOB |
| SUP1 | 060-0122-10 | |
| T 201 | 009-9006-60 | EI-19 |
| X 1 | 061-1066-00 | 7.2MHz |
| X 601 | 060-1023-00 | 4.5MHz |
| X 801 | 061-3013-00 | 4.33MHz |

## CD Mechanism Section

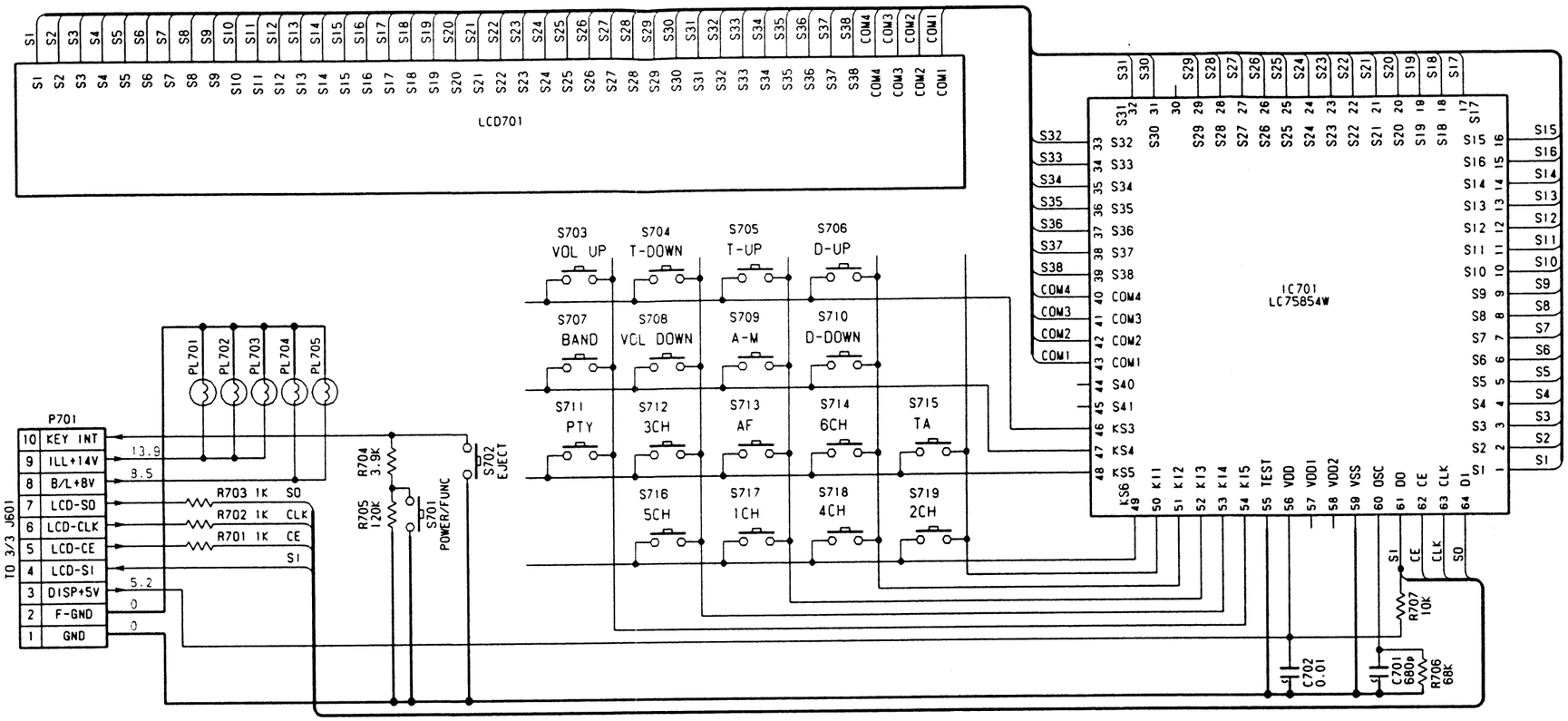
| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| C 10 | 178-1032-78 | 0.01uF |
| C 11 | 182-1063-32 | 16V10uF |
| C 12 | 178-1042-78 | 0.1uF |
| C 13 | 182-1073-12 | 6.3V100uF |
| C 14 | 178-1032-78 | 0.01uF |
| C 15 | 182-2263-12 | 6.3V22uF |
| C 16 | 178-1032-78 | 0.01uF |
| C 17 | 178-1042-78 | 0.1uF |
| C 18 | 178-1042-78 | 0.1uF |
| C 19 | 176-1007-00 | 10pF CH |
| C 20 | 178-1042-78 | 0.1uF |
| C 21 | 182-2263-12 | 6.3V22uF |
| C 22 | 176-2096-00 | 2pF CJ |
| C 23 | 178-1042-78 | 0.1uF |
| C 24 | 178-1022-78 | 1000pF |
| C 25 | 176-1007-00 | 10pF CH |
| C 26 | 176-1007-00 | 10pF CH |
| C 27 | 182-1073-12 | 6.3V100uF |
| C 28 | 178-1042-78 | 0.1uF |
| C 29 | 182-1073-12 | 6.3V100uF |
| C 30 | 178-1042-78 | 0.1uF |
| C 31 | 176-1007-00 | 10pF CH |
| C 32 | 178-2212-78 | 220pF |
| C 33 | 178-1042-78 | 0.1uF |
| C 34 | 178-2212-78 | 220pF |
| C 35 | 178-1032-78 | 0.01uF |
| C 36 | 178-4732-78 | 0.047uF |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| C 37 | 178-1522-78 | 1500pF |
| C 38 | 178-1032-78 | 0.01uF |
| C 39 | 042-0230-00 | 35V0.47uF |
| C 40 | 178-1032-78 | 0.01uF |
| C 41 | 178-1042-78 | 0.1uF |
| C 42 | 178-2222-78 | 2200pF |
| C 100 | 182-4763-12 | 6.3V47uF |
| C 101 | 182-4763-12 | 6.3V47uF |
| C 102 | 178-1032-78 | 0.01uF |
| C 103 | 182-1073-32 | 16V100uF |
| D 1 | 001-0563-00 | GL380 |
| D 2 | 001-0563-00 | GL380 |
| D 3 | 001-0563-00 | GL380 |
| IC 1 | 051-1014-10 | TA7291S |
| IC 2 | 051-6015-05 | BA6392FP |
| IC 3 | 051-6314-05 | TC9404FN |
| IC 4 | 051-1971-00 | CXA16010M |
| IC 5 | 051-6313-00 | CXD2545Q |
| L 1 | 010-2155-03 | 10uH |
| L 2 | 010-2155-03 | 10uH |
| L 3 | 010-2155-03 | 10uH |
| Q 1 | 101-1237-00 | 2SB1237 |
| Q 101 | 060-0252-01 | PT4850F |
| Q 102 | 060-0252-01 | PT4850F |
| Q 103 | 060-0252-01 | PT4850F |
| R 10 | 111-2711-91 | 1/4WS 270Ω |
| R 11 | 117-8231-10 | 1/10W 82kΩ |

| REF No. | PART No. | DESCRIPTION |
|---|---|---|
| R 12 | 117-1031-10 | 1/10W 10kΩ |
| R 14 | 117-5631-10 | 1/10W 56kΩ |
| R 15 | 117-2731-10 | 1/10W 27kΩ |
| R 16 | 117-2211-10 | 1/10W 220Ω |
| R 17 | 117-2211-10 | 1/10W 220Ω |
| R 18 | 117-1031-10 | 1/10W 10kΩ |
| R 19 | 117-2231-10 | 1/10W 22kΩ |
| R 20 | 117-4721-10 | 1/10W 4.7kΩ |
| R 21 | 117-2231-10 | 1/10W 22kΩ |
| R 22 | 117-4711-10 | 1/10W 470Ω |
| R 23 | 117-1011-10 | 1/10W 100Ω |
| R 24 | 117-1021-10 | 1/10W 1kΩ |
| R 25 | 117-1001-10 | 1/10W 10Ω |
| R 26 | 117-3331-10 | 1/10W 33kΩ |
| R 27 | 117-3631-10 | 1/10W 36kΩ |
| R 28 | 117-1241-10 | 1/10W 120kΩ |
| R 29 | 117-3631-10 | 1/10W 36kΩ |
| R 30 | 117-1041-10 | 1/10W 100kΩ |
| R 31 | 117-1031-10 | 1/10W 10kΩ |
| R 32 | 117-6821-10 | 1/10W 6.8kΩ |
| R 33 | 117-3321-10 | 1/10W 3.3kΩ |
| R 34 | 117-1051-10 | 1/10W 1MΩ |
| R 35 | 117-1041-10 | 1/10W 100kΩ |
| R 36 | 117-1031-10 | 1/10W 10kΩ |
| X 1 | 060-1014-00 | 16.9344MHz |

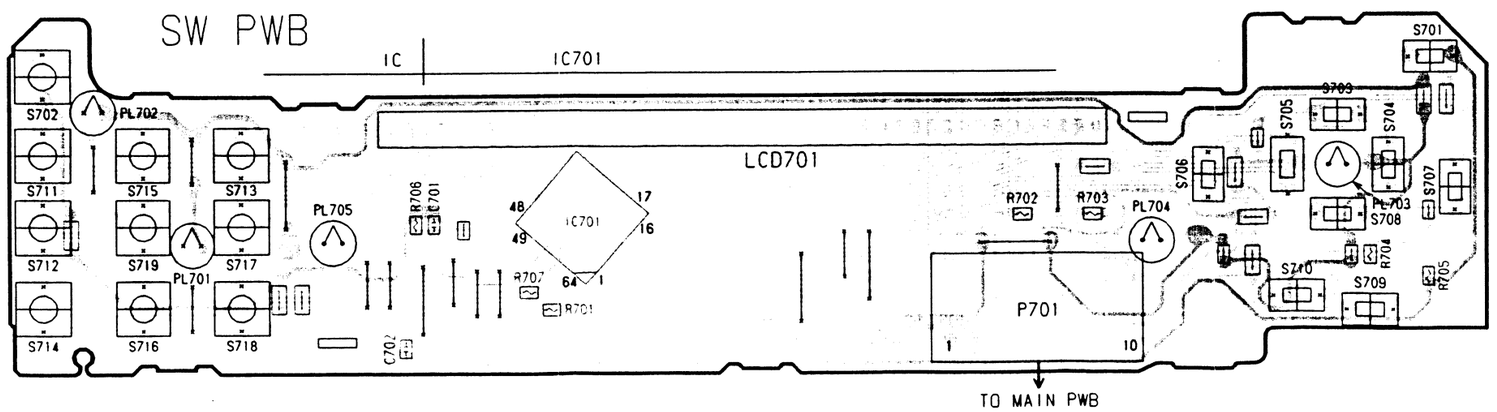
## ■CIRCUIT DIAGRAM 1/3

SW PWB section



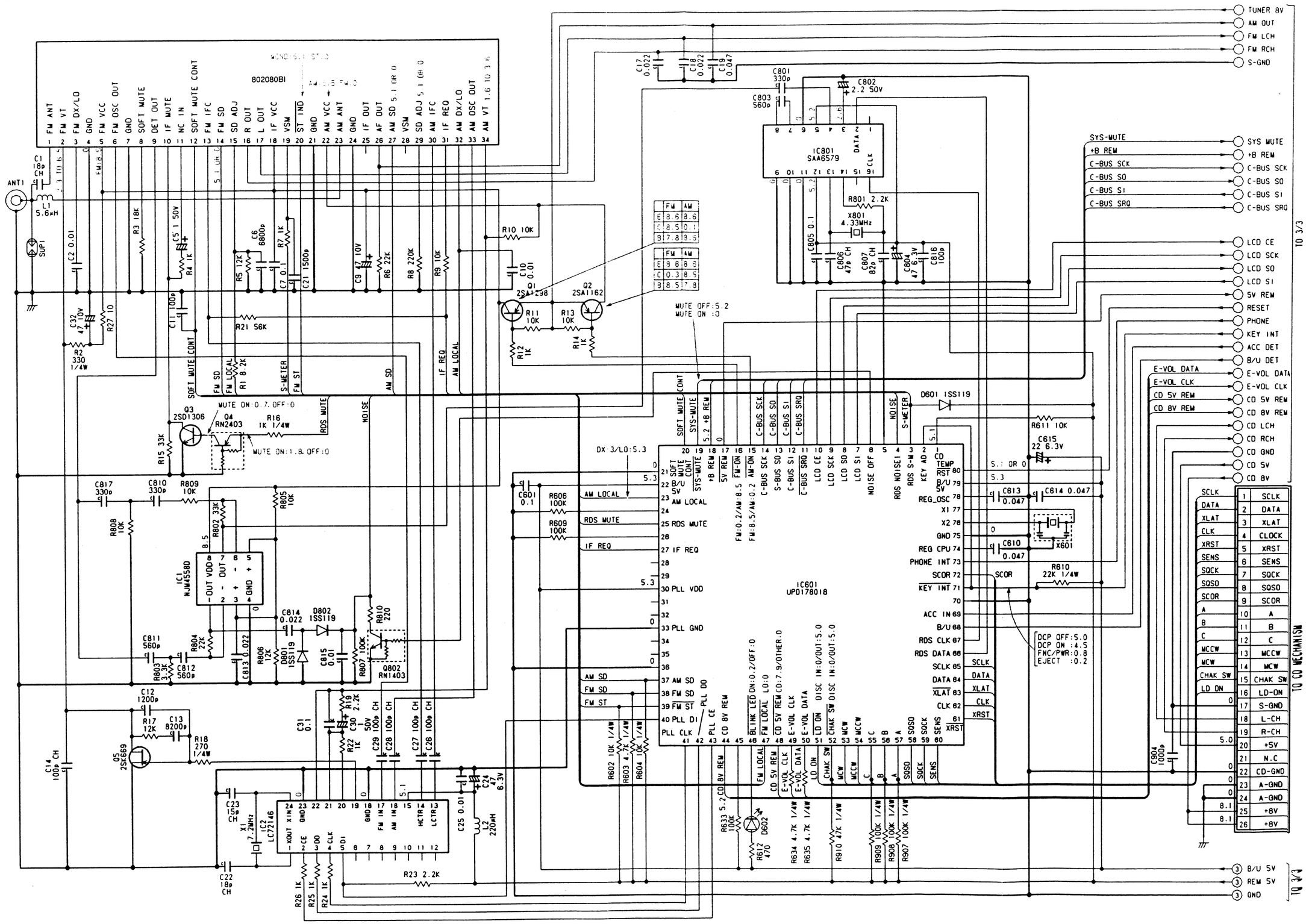

## ■PRINTED WIRING BOARD

SW PWB section



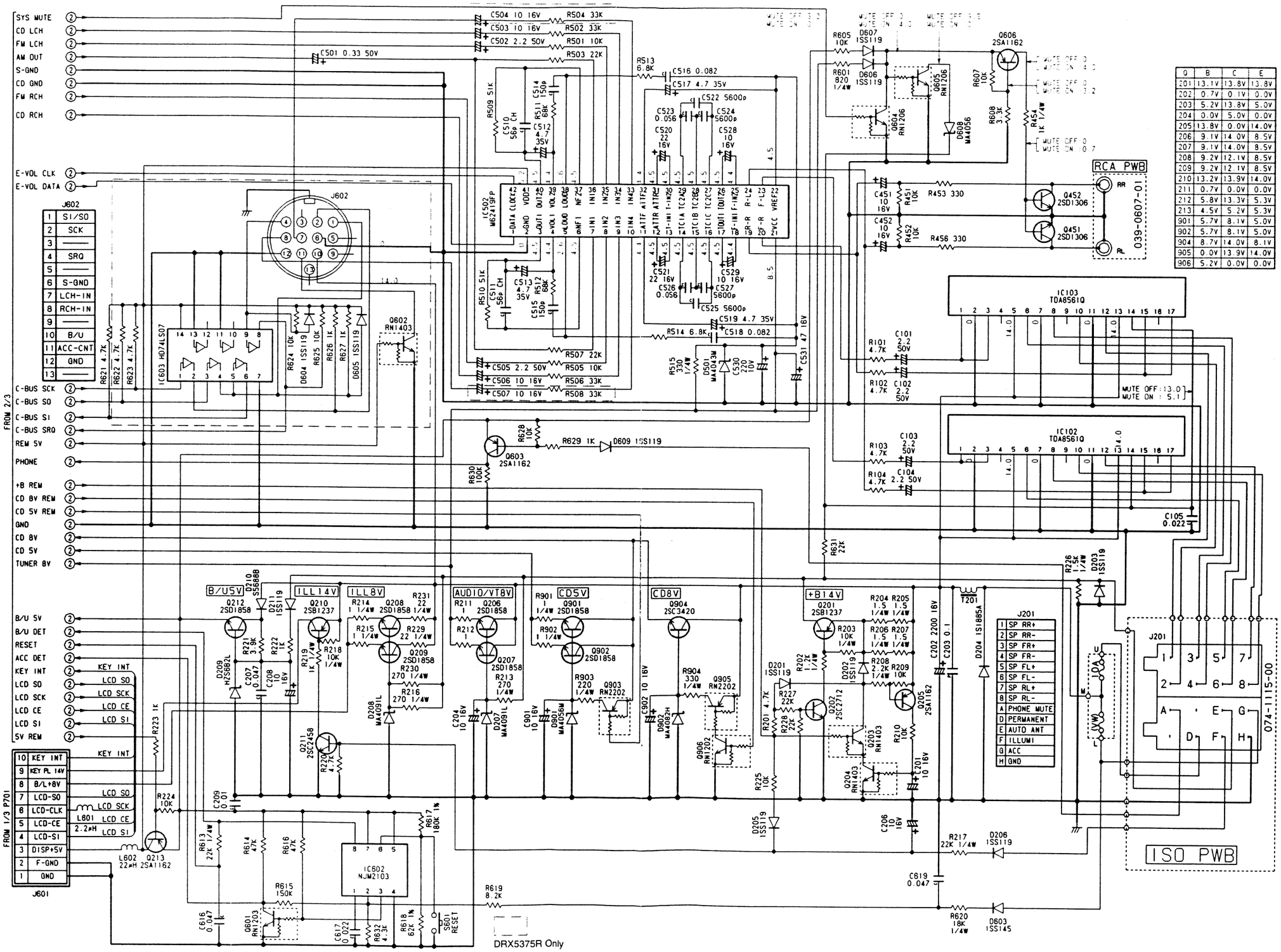
# ■CIRCUIT DIAGRAM 2/3

Main PWB section 1/2



# ■CIRCUIT DIAGRAM 3/3

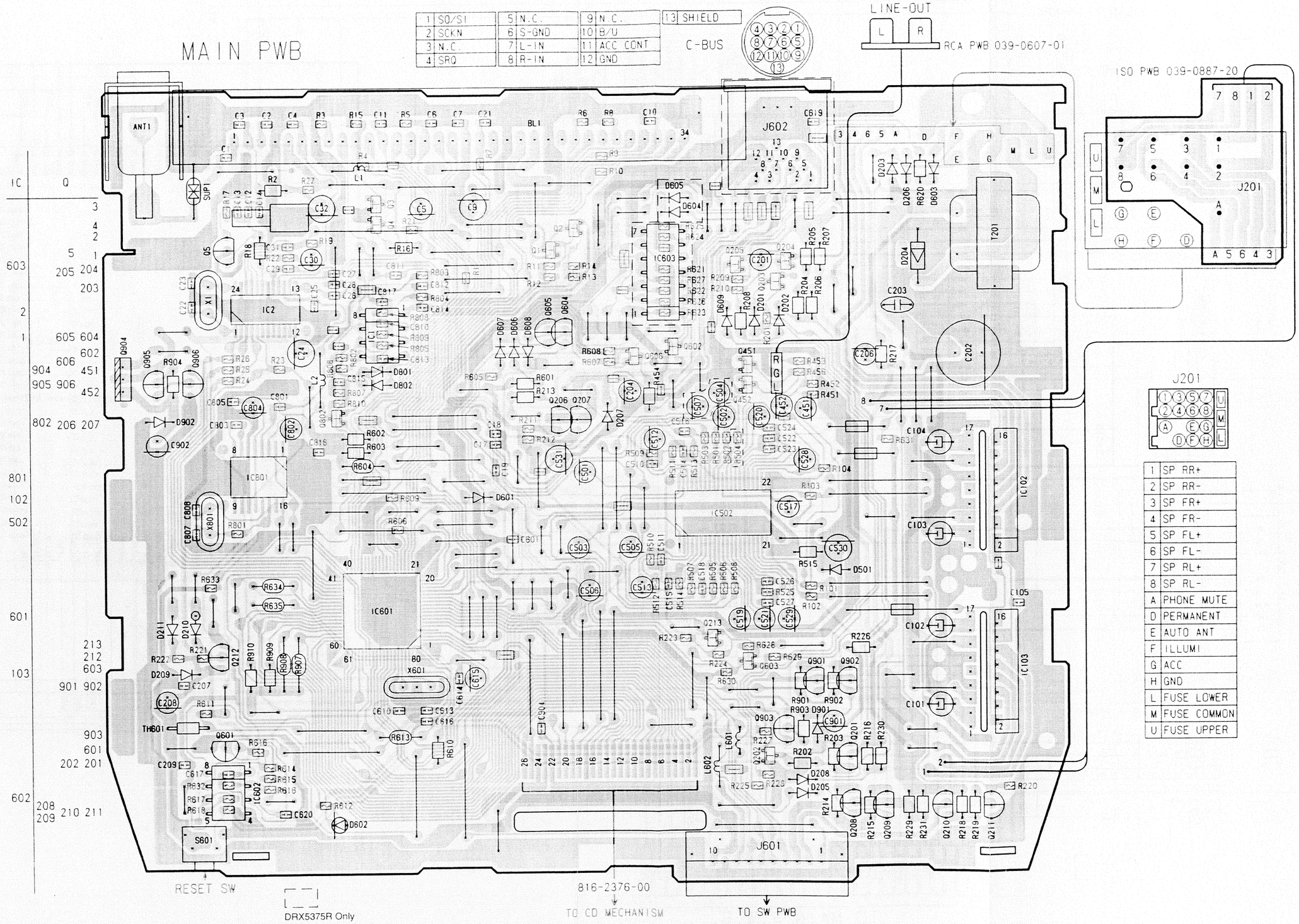
Main PWB section 2/2




| Q | B | C | E |
|---|---|---|---|
| 201 | 13.1V | 13.8V | 13.8V |
| 202 | 0.7V | 0.1V | 0.0V |
| 203 | 5.2V | 13.8V | 5.0V |
| 204 | 0.0V | 5.0V | 0.0V |
| 205 | 13.8V | 0.0V | 14.0V |
| 206 | 9.1V | 14.0V | 8.5V |
| 207 | 9.1V | 14.0V | 8.5V |
| 208 | 9.2V | 12.1V | 8.5V |
| 209 | 9.2V | 12.1V | 8.5V |
| 210 | 13.2V | 13.9V | 14.0V |
| 211 | 0.7V | 0.0V | 0.0V |
| 212 | 5.8V | 13.3V | 5.3V |
| 213 | 4.5V | 5.2V | 5.3V |
| 901 | 5.7V | 8.1V | 5.0V |
| 902 | 5.7V | 8.1V | 5.0V |
| 904 | 8.7V | 14.0V | 8.1V |
| 905 | 0.0V | 13.9V | 14.0V |
| 906 | 5.2V | 0.0V | 0.0V |

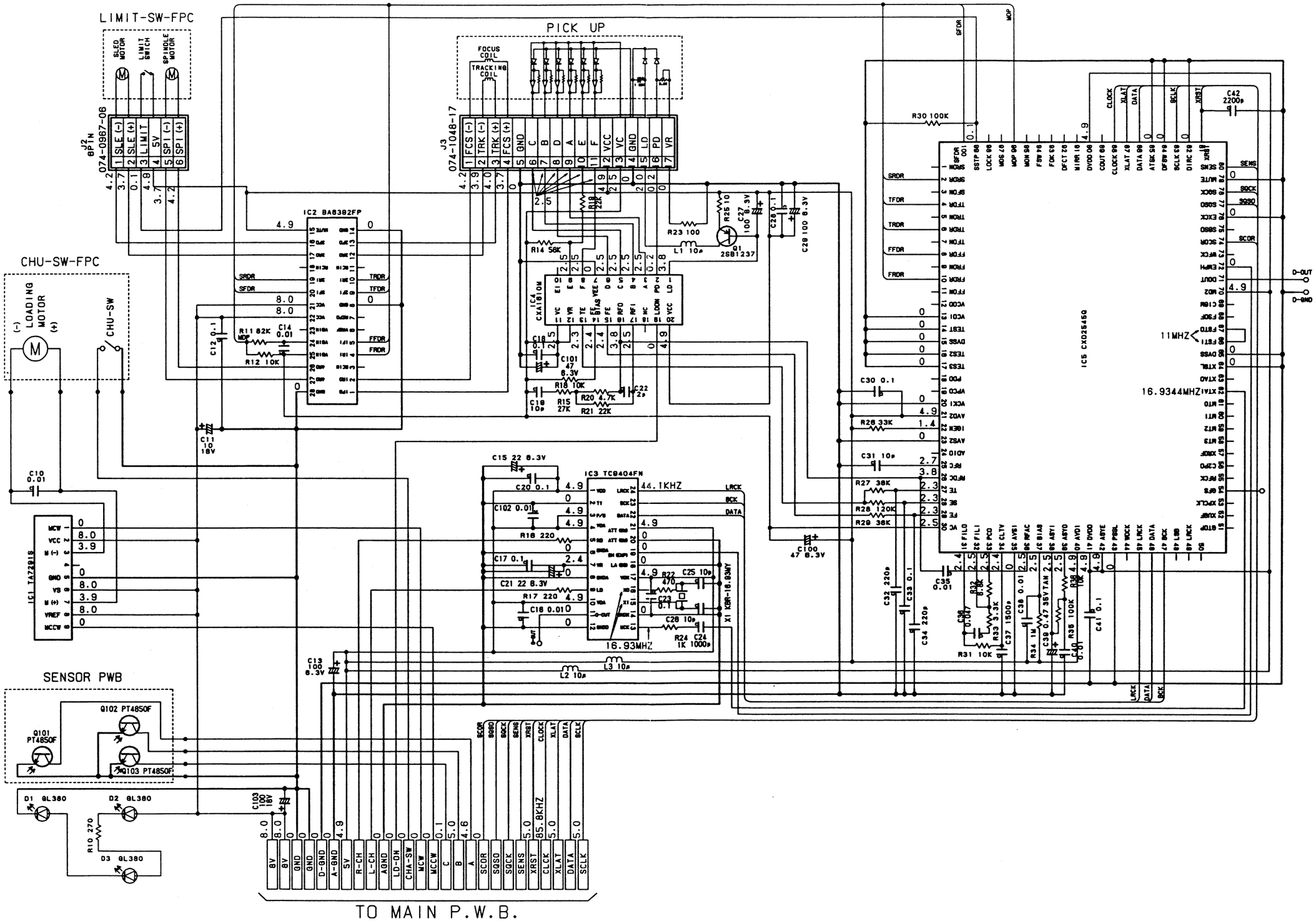
## ■ PRINTED WIRING BOARD

Main PWB section



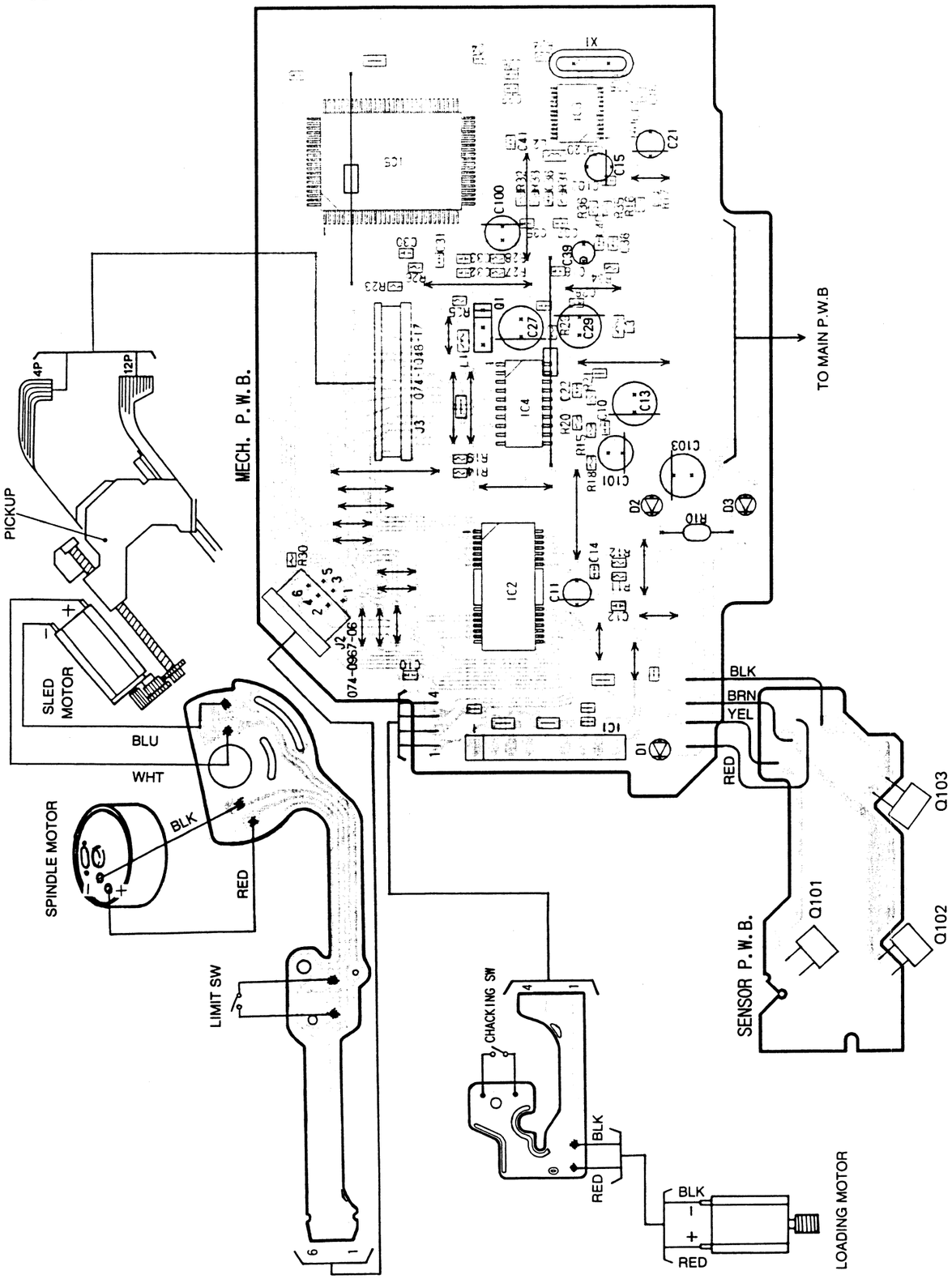
# ■CIRCUIT DIAGRAM

CD Mechanism Section 929-0065-80 (BB-CD)



## ■PRINTED WIRING BOARD

CD Mechanism Section 929-0065-80 (BB-CD)



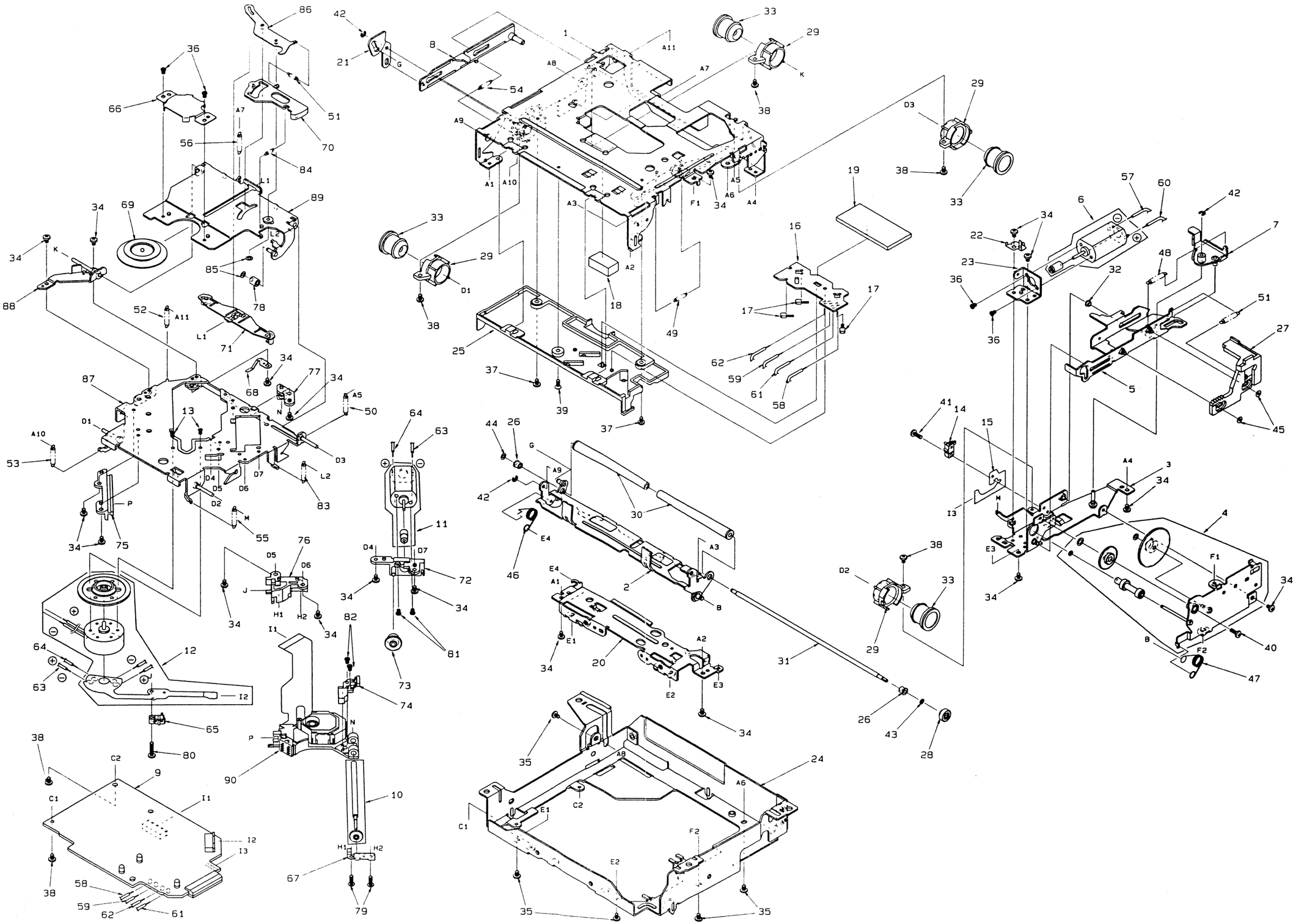



## ■EXPLODED VIEW

CD Mechanism Section 929-0065-80 (BB-CD)

| NO. | PART NO. | DESCRIPTION | Q'TY |
|---|---|---|---|
| 1 | 966-0308-06 | CHASSIS ASS'Y | 1 |
| 2 | 966-0309-04 | L-DISC-G-ASS'Y | 1 |
| 3 | 966-0310-06 | SFT-P-CH-ASS'Y | 1 |
| 4 | HBS-430-100 | GEAR-SUB-ASS'Y | 1 |
| 5 | 966-0312-06 | SHIFT-P-ASS'Y | 1 |
| 6 | SMA-147-100 | MOTOR ASS'Y(LOADING) | 1 |
| 7 | 966-0358-01 | DRIVE-L-PL-ASS'Y | 1 |
| 8 | 966-0359-03 | SIDE-L-PL-ASS'Y | 1 |
| 9 | HBS-431-100 | PWB ASS'Y | 1 |
| 10 | HBS-432-100 | LS-GEAR ASS'Y | 1 |
| 11 | SMA-146-100 | MOTOR ASS'Y(SLED) | 1 |
| 12 | SMA-151-100 | MOTOR ASS'Y(SPINDLE) | 1 |
| 13 | 716-1733-00 | SCREW | 2 |
| 14 | 013-3879-01 | CHACKING SWITCH | 1 |
| 15 | 039-0586-01 | FLEXIBLE PWB | 1 |
| 16 | 039-0588-01 | SENSOR PWB | 1 |
| 17 | 060-0252-01 | PHOTO TR (PT4850F) | 3 |
| 18 | 345-7513-01 | CLAMPER SHEET | 1 |
| 19 | 345-7514-00 | S-PEB-SHEET | 1 |
| 20 | 620-0485-03 | FRONT PLATE | 1 |
| 21 | 620-0488-01 | S-L-LINK PLATE | 1 |
| 22 | 620-0489-01 | MOTOR PLATE | 1 |
| 23 | 620-0492-01 | MOTOR BRACKET | 1 |
| 24 | 620-0691-03 | MECHA BRACKET | 1 |
| 25 | 621-0242-02 | U-DISC GUIDE | 1 |
| 26 | 621-0243-02 | ROLLER SLEEVE | 2 |
| 27 | 621-0248-06 | RACK GEAR | 1 |
| 28 | 621-0249-02 | ROLLER GEAR | 1 |
| 29 | 621-0250-01 | DAMPER HOLDER | 4 |
| 30 | 621-0258-03 | LOADING ROLLER | 2 |
| 31 | 622-1072-04 | ROLER SHAFT | 1 |
| 32 | 622-1219-01 | SHIFT ROLLER | 1 |
| 33 | 629-0058-00 | DAMPER-DL | 4 |
| 34 | 714-2003-81 | MACHINE SCREW(M2X3) | 18 |
| 35 | 714-2603-81 | MACHINE SCREW(M2.6X3) | 5 |
| 36 | 716-1468-00 | SCREW | 4 |
| 37 | 716-1507-00 | SCREW | 2 |
| 38 | 716-1670-00 | SCREW | 6 |
| 39 | 716-1677-00 | SCREW | 1 |
| 40 | 716-1704-00 | SCREW | 1 |
| 41 | 716-1742-00 | SCREW | 1 |
| 42 | 743-1500-10 | E-RING | 3 |
| 43 | 746-0712-03 | WASHER | 1 |
| 44 | 746-0762-00 | WASHER | 1 |
| 45 | 746-0877-02 | WASHER | 2 |

| NO. | PART NO. | DESCRIPTION | Q'TY |
|---|---|---|---|
| 46 | 750-3090-02 | RO-SPRING-L | 1 |
| 47 | 750-3091-03 | RO-SPRING-R | 1 |
| 48 | 750-3092-03 | SHIFT SPRING | 1 |
| 49 | 750-3094-00 | S-ARM SPRING | 1 |
| 50 | 750-3096-01 | DR-SPRING-R | 1 |
| 51 | 750-3098-00 | L-LINK SPRING | 2 |
| 52 | 750-3164-00 | DR-SPRING-LR | 1 |
| 53 | 750-3188-00 | DR-SP-F-B | 1 |
| 54 | 750-3189-00 | SIDE-L-SPRING | 1 |
| 55 | 750-3201-00 | DR-SPRING-F-R | 1 |
| 56 | 750-3202-00 | CENTER SPRING-B | 1 |
| 57 | 800-4904-60 | VINYL COAT WIRE(BLK) | 1 |
| 58 | 800-4910-60 | VINYL COAT WIRE(BLK) | 1 |
| 59 | 801-4910-60 | VINYL COAT WIRE(BRN) | 1 |
| 60 | 802-4904-60 | VINYL COAT WIRE(RED) | 1 |
| 61 | 802-4910-60 | VINYL COAT WIRE(RED) | 1 |
| 62 | 804-4910-60 | VINYL COAT WIRE(YEL) | 1 |
| 63 | 816-2372-00 | VINYL COAT WIRE(BLU) | 1 |
| 64 | 816-2373-00 | VINYL COAT WIRE(WHT) | 1 |
| 65 | 013-7100-00 | LIMIT SWITCH | 1 |
| 66 | 620-0198-03 | CLAMPER PLATE | 1 |
| 67 | 620-0491-02 | SPRING PLATE | 1 |
| 68 | 620-0690-00 | RATTLE PLATE | 1 |
| 69 | 621-0205-02 | CLAMPER PLATE | 1 |
| 70 | 621-0251-02 | LOCK LINK | 1 |
| 71 | 621-0252-03 | DISC STOPPER | 1 |
| 72 | 621-0253-01 | MOTOR HOLDER | 1 |
| 73 | 621-0255-02 | SECOND GEAR | 1 |
| 74 | 621-0257-05 | SCREW HOLDER | 1 |
| 75 | 621-0357-01 | PICKUP GUIDE | 1 |
| 76 | 621-0358-02 | LS-HOLDER-F | 1 |
| 77 | 621-0359-02 | LS-HOLDER-R | 1 |
| 78 | 622-1073-02 | CLAMPER ROLLER | 1 |
| 79 | 716-0675-00 | SCREW | 2 |
| 80 | 716-1555-00 | WAVE SCREW | 1 |
| 81 | 732-2004-11 | SEMS SCREW | 2 |
| 82 | 739-1735-17 | PRECISION SCREW | 2 |
| 83 | 750-3097-02 | CLAMPER SPRING | 1 |
| 84 | 750-3099-00 | ES-SPRING | 1 |
| 85 | 746-0761-00 | WASHER | 2 |
| 86 | 966-0314-01 | STOP LINK ASS'Y | 1 |
| 87 | 966-0447-02 | DR-PLATE ASS'Y | 1 |
| 88 | 966-0448-00 | SIDE PLATE ASS'Y | 1 |
| 89 | 966-0449-00 | CLAMP LINK ASS'Y | 1 |
| 90 | 969-0005-00 | PICKUP UNIT ASS'Y | 1 |








DRX5375R/DRB4475R